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The Guaranteed Network

Closer to you, Further into the future.

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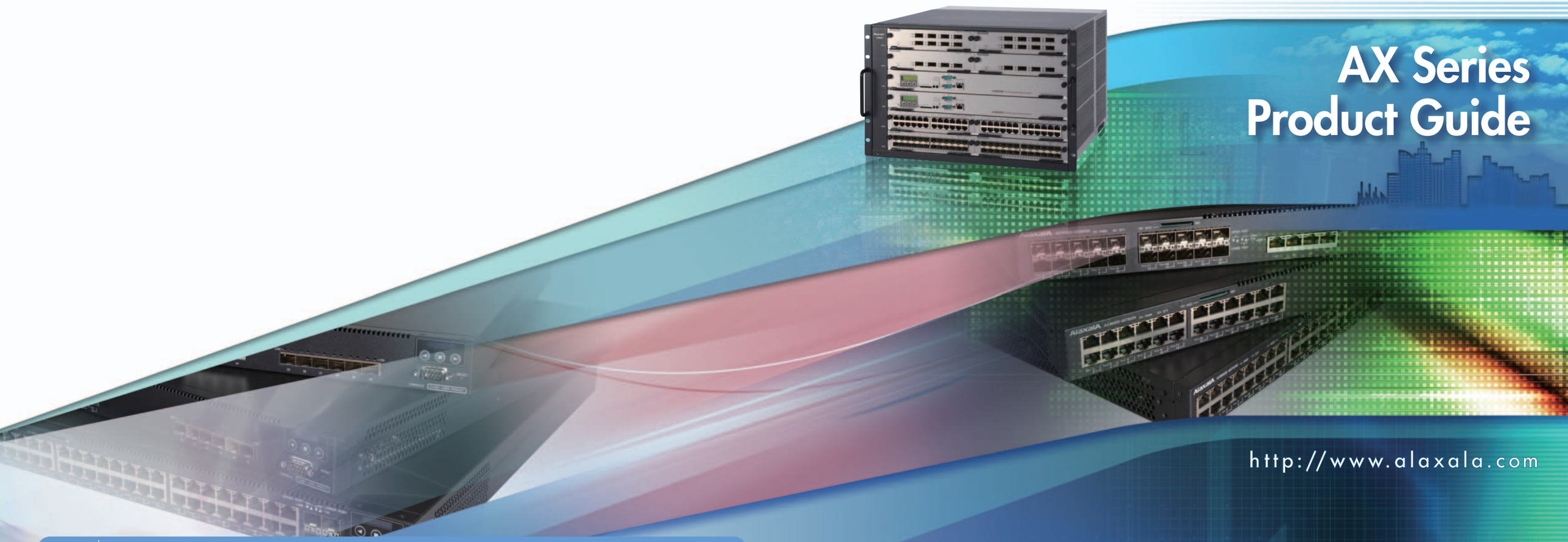
AX Series Product Guide



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Caution | For your safety, please be sure to read the *Hardware Instruction Manual* and *Safety Guide* beforehand.

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ALAXALA Networks Corporation

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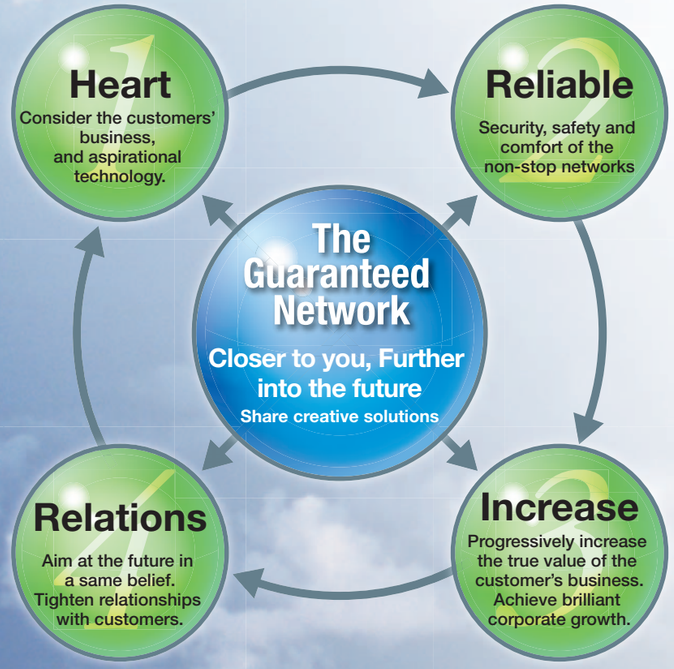
ALAXALA Networks Corporation

The Guaranteed Network

Closer to you, Further into the future.

ALAXALA Networks applies advanced information and communication technologies
to create convenient business infrastructures,
driving network evolution that generates security and peace of mind.
With our customers in mind,
we forge creative solutions to continue driving business evolution.
We are committed to strengthening ties with customers worldwide and
helping maximize their corporate value.


1
Heart
Consider the customers' business, and aspirational technology.
2
Reliable
Security, safety and comfort of the non-stop networks
The Guaranteed Network
Closer to you, Further into the future
Share creative solutions
3
Increase
Progressively increase the true value of the customer's business. Achieve brilliant corporate growth.
4
Relations
Aim at the future in a same belief. Tighten relationships with customers.

We are a company pursuing "Best for Customers" solutions through creation of guaranteed networks.

The AX series is aimed at satisfying various customer needs, with its high-quality performance and best solutions applicable in various scenes.

With the AX series, ALAXALA has been engaged in product development, always from customer perspectives, pursuing total quality to satisfy customer needs. Consider our highly qualified and reliable AX series as your choice of network equipment that supports your business in various fields, from social network infrastructures to business network platforms.

Product Lineup

Network Switch

AX Box-type Switches Selection Guide

		24(UTP)	24(PoE)	24 or more (optical interface)	48 (UTP)
L3	10GbE			VRF 10G×44 6 AX3830S-44XW	
	1GbE+ Uplink 10GbE	10G×2 9 AX3640S-24T2XW		10G×2 11 AX3640S-24S2XW	10G×2 13 AX3640S-48T2XW
	1GbE	8 AX3640S-24TW		10 AX3640S-24SW	12 AX3640S-48TW
L2	1GbE+ Uplink 10GbE	SML 10G×4 15 AX2530S-24T4X		SML 10G×4 16 AX2530S-24S4X	SML 10G×2 18 AX2530S-48T2X
	1GbE	SML 14 AX2530S-24T			SML 17 AX2530S-48T
	100MbE+ Uplink 1GbE	Environmentally resistant 19 AX1250S-24T2CH 20 AX1240S-24T2C	21 AX1240S-24P2C		22 AX1240S-48T2C
Number of ports					

Support Function

Function	Description	AX6700S	AX6300S	AX3600S	AX1200S	AX6600S	AX3800S	AX2500S
OSPF/BGP	Routing protocol suited to large-scale complex networks	●	●	●	●	●	●	●
Multicast	A communication technique that enables simultaneous multi-destination data delivery, which causes less network load than Unicast	●	●	●	●	●	●	●
IPv6	Next generation internet protocol, which allows for a huge address space compared to IPv4 and includes several other improvements	●	●	●	●	●	●	●
VRF (VRF)	A technique that allows multiple instances of a routing table to co-exist within the same switch at the same time	●	●	●		●	●	
Fault tolerant switch	A switch featuring two-in-one architecture, which contains functions of two switch units and helps continue operation even if a fault occurs	●	●					
SML (SML)	Split Multi Link: function that enhances reliability by achieving link aggregation between two switches with split paths							●
Graceful restart	Function that minimizes the influence of routing table recalculation when a fault has occurred	●	●	●	●	●	●	●
Ring protocol	A redundancy protocol that provides fast convergence in layer 2 ring topologies	●	●	●	●	●	●	●*1
GSRP	Gigabit Switch Redundancy Protocol: protocol that provides redundancy at both layer 2 and Layer 3 through a single function (ALAXALA proprietary function)	●	●	●	●	●	●	●
L2 loop detection	Function that detects a network loop at layer 2 and enables the automatic notification / elimination of the loop.	●	●	●	●	●	●	●
IEEE802.1X authentication	This type of authentication provides the highest security level though requires dedicated client software (supplicant).	●	●	●	●	●	●	●
Web authentication	This type of authentication does not require dedicated client software because users are prompted to enter ID/password through web browsers.	●	●	●	●	●	●	●
MAC-based authentication	This type of authentication can be carried out easily just by using a device's MAC address.	●	●	●	●	●	●	●
Dynamic power saving	Provides various features that make the entire network system enter a power saving state seamlessly.	●	●	●	●	●	●	●
Fanless	Realizes noise-free office environment and reduces troubles that may be caused due to dust absorption by the fan.				●*2			●*2
OAN	Cutting edge network management technology that uses NETCONF (RFC-standard) to realize automatic operation management	●	●	●	●	●	●	●
Command-free maintenance	Function that enables data backup and restoration with use of SD cards in which scripts are recorded	●	●	●	●	●	●	●
Environmentally-resistant switch (Environmentally resistant)	An environmentally-resistant hardware design suitable for use under severe circumstances (e.g., at production sites or logistics facilities)				●*3			

*1: Only Transit is supported (the Master function of AX2500S is planned to be supported in 2012).
*2: Fanless models: 14 AX2530S-24T, 19 AX1250S-24T2CH, 20 AX-1240S-24T2C
*3: Supported only on AX1250S.
#: For details about functions, see *Switch Specifications* (P12 to P15).

Descriptions for the marks used in this catalog

IPv6 Ready Logo Phase-2		SFP	1000Base-X (for SFP) is supported
10/100	10Base-T and 100Base-TX are supported.	XFP	1000Base-X (for XFP) is supported
10/100/1000	10Base-T, 100Base-TX and 1000Base-T are supported.	SFP/SFP+	1000Base-X and 10Gbase-X (for SFP+) are supported
PoE/PoE+	PoE and PoE+ are supported.	Redundant power supplies	Redundant power supplies are supported.

Network Switch

AX6000S Family

The fault tolerant architecture of the AX6000S family delivers continuous operation, thus enabling non-stop communication. Its cutting-edge dynamic power saving technology* minimizes unnecessary power consumption.

*Supported on AX6700S/AX6600S

AX6700S Series | Full-spec fault-tolerant switches that realize “non-stop networks”

1 AX6708S

10/100/1000 ×192 | SFP ×192 | XFP ×64

Redundant power supplies

Switching capacity **1.15Tbps**[*1]

Packet forwarding rate **720Mpps**[*1]

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 443 (W) x 544 (D) x 395 (H) mm (9U) (AC) /
443 (W) x 573 (D) x 395 (H) mm (9U) (DC)
Weight (at maximum load) : 82kg or less
Maximum power consumption : 3750W (AC, DC)

*1: When three BSUs (Basic Switching Units) are used.

AX6600S Series | Compact full-spec fault-tolerant switches inheriting high availability and power saving technology from the AX6700S

2 AX6604S

10/100/1000 ×96 | SFP ×96 | XFP ×32

Redundant power supplies

Switching capacity **192Gbps**[*1]

Packet forwarding rate **120Mpps**[*1]

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 443 (W) x 544 (D) x 211 (H) mm (5U) (AC) /
443 (W) x 573 (D) x 211 (H) mm (5U) (DC)
Weight (at maximum load) : 45kg or less
Maximum power consumption : 1500W (AC, DC)

*1: When two CSUs (Control and Switching Units) are used.

3 AX6608S

10/100/1000 ×192 | SFP ×192 | XFP ×64

Redundant power supplies

Switching capacity **384Gbps**[*1]

Packet forwarding rate **240Mpps**[*1]

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 443 (W) x 544 (D) x 303 (H) mm (7U) (AC) /
443 (W) x 573 (D) x 303 (H) mm (7U) (DC)
Weight (at maximum load) : 64kg or less
Maximum power consumption : 2400W (AC, DC)

AX6300S Series | Cost-effective, standard fault-tolerant switches

4 AX6304S

10/100/1000 ×96 | SFP ×96 | XFP ×32

Redundant power supplies

Switching capacity **96Gbps**

Packet forwarding rate **60Mpps**

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 443 (W) x 544 (D) x 211 (H) mm (5U) (AC) /
443 (W) x 573 (D) x 211 (H) mm (5U) (DC)
Weight (at maximum load) : 45kg or less
Maximum power consumption : 1500W (AC, DC)

5 AX6308S

10/100/1000 ×192 | SFP ×192 | XFP ×64

Redundant power supplies

Switching capacity **192Gbps**

Packet forwarding rate **120Mpps**

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 443 (W) x 544 (D) x 303 (H) mm (7U) (AC) /
443 (W) x 573 (D) x 303 (H) mm (7U) (DC)
Weight (at maximum load) : 64kg or less
Maximum power consumption : 2400W (AC, DC)

AX3800S Series

1U-sized, box-type switch designed for 10GbE aggregation and top-of-rack solution in next-generation datacenter networks

AX3830S | 1U-sized switches equipped with 44 ports for 10G Ethernet that range from virtual server aggregation switches in datacenters to 10G core switches in enterprises

6 AX3830S-44XW

VRF

10/100/1000 ×4 | SFP/SFP+ ×44

Redundant power supplies

Switching capacity **888Gbps**

Packet forwarding rate **660.7Mpps**

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 445 (W) x 580 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 11.0kg or less
Maximum power consumption : 250W (AC, DC)

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Product Award
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Datacenter network solution using the AX3800S

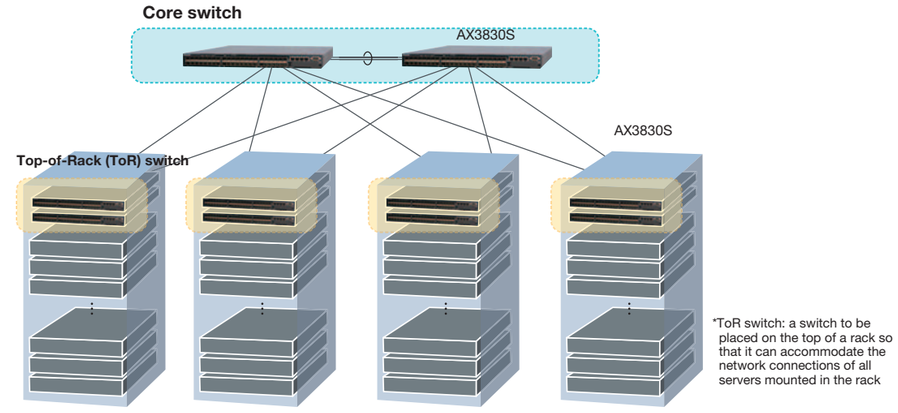
•Mega-layer 2 network

In next-generation datacenter networks, MAC addresses will be increased dramatically due to rapid progress in virtualization technology. Facing such a challenge, we need a switch capable of providing a larger networking capacity than the existing layer 2 switches.

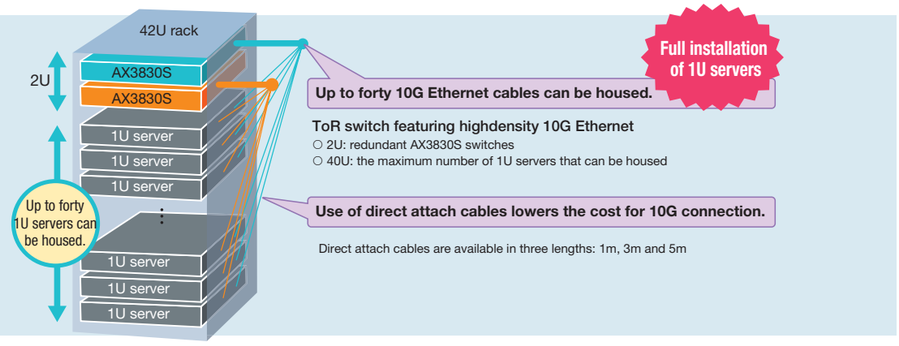
Foreseeing the future of datacenters, the AX3830S is designed to be capable of storing up to 130,000 MAC addresses.

•10GbE aggregation ToR switch

With its capacity of up to 44 interfaces for 10G Ethernet, the AX3830S enables full 10G Ethernet datacenter networking.



*ToR switch: a switch to be placed on the top of a rack so that it can accommodate the network connections of all servers mounted in the rack


42U rack
2U
AX3830S
AX3830S
1U server
1U server
1U server
Up to forty 1U servers can be housed.
1U server
1U server
1U server
Full installation of 1U servers
Up to forty 10G Ethernet cables can be housed.
ToR switch featuring highdensity 10G Ethernet
○ 2U: redundant AX3830S switches
○ 40U: the maximum number of 1U servers that can be housed
Use of direct attach cables lowers the cost for 10G connection.
Direct attach cables are available in three lengths: 1m, 3m and 5m

AX3600S Series

Gigabit multilayer, box-type switches offering high reliability and rich functionalities equivalent to those of core routers

- The AX3600S provides routing functions equivalent to those of the high-end chassis models, and is suitable for distribution and core in enterprise network.

7 AX3640S-24T

10/100/1000 ×24*1 | SFP ×4*1

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 380 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 5.0kg or less
Maximum power consumption : 75W

Switching capacity **48Gbps** | Packet forwarding rate **35.7Mpps**

8 AX3640S-24TW

10/100/1000 ×24*1 | SFP ×4*1

Redundant power supplies

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 445 (W) x 440 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 9.0kg or less
Maximum power consumption : 85W (AC), 75W (DC)

Switching capacity **48Gbps** | Packet forwarding rate **35.7Mpps**

9 AX3640S-24T2XW

10/100/1000 ×24*1 | SFP ×4*1 | XFP ×2

Redundant power supplies

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 445 (W) x 440 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 9.0kg or less
Maximum power consumption : 100W (AC), 90W (DC)

Switching capacity **88Gbps** | Packet forwarding rate **65.5Mpps**

10 AX3640S-24SW

10/100/1000 ×4*1*2 | SFP ×24*1

Redundant power supplies

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 445 (W) x 440 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 9.0kg or less
Maximum power consumption : 85W (AC), 75W (DC)

Switching capacity **48Gbps** | Packet forwarding rate **35.7Mpps**

11 AX3640S-24S2XW

10/100/1000 ×4*1*2 | SFP ×24*1 | XFP ×2

Redundant power supplies

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 445 (W) x 440 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 9.0kg or less
Maximum power consumption : 100W (AC), 90W (DC)

Switching capacity **88Gbps** | Packet forwarding rate **65.5Mpps**

12 AX3640S-48TW

10/100/1000 ×48*1 | SFP ×4*1

Redundant power supplies

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 445 (W) x 440 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 9.0kg or less
Maximum power consumption : 135W (AC), 125W (DC)

Switching capacity **96Gbps** | Packet forwarding rate **71.4Mpps**

13 AX3640S-48T2XW

10/100/1000 ×48 | XFP ×2

Redundant power supplies

Hot-swappable power supply
AC100 to 120V / 200 to 240V, DC-48V

Dimensions : 445 (W) x 440 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 9.0kg or less
Maximum power consumption : 145W (AC), 135W (DC)

Switching capacity **136Gbps** | Packet forwarding rate **101.2Mpps**

*1: Four 1000BASE-X ports and four 10/100/1000BASE-T ports are mutually exclusive (they cannot be used simultaneously).
*2: With the SFP-T module, up to 24 ports are available.

AX2500S Series

Compact, gigabit layer 2 switches offering feature-rich functionality and high reliability

- Split Multi Link (SML) of the AX2500S offers highly reliable fault tolerant networks in combination with high-end multilayer switches.
- Various authentication features, such as triple authentication and quarantine, enable configuration of flexible secure networks.
- Advanced dynamic power-saving technology reduces unnecessary power consumption.

14 AX2530S-24T SML

10/100/1000 ×24 | SFP ×4*1

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 230 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 3.0kg or less
Maximum power consumption : 40W

Switching capacity **56Gbps** | Packet forwarding rate **41.6Mpps**

15 AX2530S-24T4X SML

10/100/1000 ×24 | SFP/SFP+ ×4*1

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 300 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 3.9kg or less
Maximum power consumption : 57W

Switching capacity **128Gbps** | Packet forwarding rate **95.2Mpps**

16 AX2530S-24S4X SML

SFP ×24*2 | SFP/ SFP+ ×4*1

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 300 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 3.9kg or less
Maximum power consumption : 75W

Switching capacity **128Gbps** | Packet forwarding rate **95.2Mpps**

17 AX2530S-48T SML

10/100/1000 ×48 | SFP ×4*1

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 300 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 4.2kg or less
Maximum power consumption : 80W

Switching capacity **104Gbps** | Packet forwarding rate **77.3Mpps**

18 AX2530S-48T2X SML

10/100/1000 ×48 | SFP/SFP+ ×2*1 | SFP ×2*1

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 300 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 4.2kg or less
Maximum power consumption : 85W

Switching capacity **140Gbps** | Packet forwarding rate **104.1Mpps**

*1: These ports operate in 1000BASE-T mode when used with the SFP-T module.
*2: In 16 AX2530S-24S4X, the SFP ports operate in 10/100/1000BASE-T mode when used with the SFP-T module.

AX1200S Series

Fast Ethernet layer 2 switches providing high security for network edges

AX1250S

Edge switches providing protection against heat, dusts and dripping water, designed for use under severe circumstances such as factories, railways or highways

19 AX1250S-24T2CH

Environmentally resistant

10/100 ×24 | 10/100/1000 ×2*1 | SFP ×2*1

AC100 to 120V / 200 to 240V

Dimensions : 477 (W) x 250 (D) x 65 (H) mm
Weight (at maximum load) : 3.0kg or less
Maximum power consumption : 18W / 21W*2

Switching capacity 8.8Gbps | Packet forwarding rate 6.5Mpps

AX1240S

Fast Ethernet layer 2 switches providing secure network

20 AX1240S-24T2C

10/100 ×24 | 10/100/1000 ×2*1 | SFP ×2*1

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 200 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 2.8kg or less
Maximum power consumption : 18W / 21W*2

Switching capacity 8.8Gbps | Packet forwarding rate 6.5Mpps

21 AX1240S-24P2C

10/100 ×24*3 | 10/100/1000 ×2*1 | SFP ×2*1

PoE/PoE+

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 350 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 5.8kg or less
Maximum power consumption : 450W / 453W*2

Switching capacity 8.8Gbps | Packet forwarding rate 6.5Mpps

22 AX1240S-48T2C

10/100 ×48 | 10/100/1000 ×2*1 | SFP ×2*1

AC100 to 120V / 200 to 240V

Dimensions : 445 (W) x 250 (D) x 43 (H) mm (1U)
Weight (at maximum load) : 3.8kg or less
Maximum power consumption : 30W / 33W*2

Switching capacity 13.6Gbps | Packet forwarding rate 10.1Mpps

*1: Two 1000BASE-X ports and two 10/100/1000BASE-T ports are mutually exclusive (they cannot be used simultaneously).
*2: When two 1000BASE-LH ports are used
*3: Up to 12 ports are available for Class 4 powered devices.

Accessories

Accessories

The AX series supports various accessories for flexible network configuration.

Optical transceiver (SFP)

#: The SFP modules for 1000BASE-BX10 must be used in a pair of SFP-BX1U and SFP-BX1D. Likewise, the SFP modules for 1000BASE-BX40 must be used in a pair of SFP-BX4U and SFP-BX4D. (U: for upstream, D: for downstream)

SFP-T

10/100/1000BASE-T
UTP: 100m
23 AX-F6244-3S1TX

SFP-SX

1000BASE-SX
MMF: 2m to 550m
24 AX-F6244-3S1SX

SFP-SX2

1000BASE-SX2
MMF: 2m to 2km
25 AX-F6244-3S1S2X

SFP-LX

1000BASE-LX
MMF: 2m to 550m,
SMF: 2m to 5km
26 AX-F6244-3S1LX

SFP-LH

1000BASE-LH
SMF: 2m to 70km
27 AX-F6244-3S1LHX

SFP-LHB

1000BASE-LHB
SMF: 2m to 100km
28 AX-F6244-3S1LHBX

Optical transceiver (XFP)

SFP-BX1U#

1000BASE-BX10
SMF: 0.5m to 10km
29 AX-F6244-3SB1UX

SFP-BX1D#

1000BASE-BX10
SMF: 0.5m to 10km
30 AX-F6244-3SB1DX

SFP-BX4U#

1000BASE-BX40
SMF: 0.5m to 40km
31 AX-F6244-3SB4UX

SFP-BX4D#

1000BASE-BX40
SMF: 0.5m to 40km
32 AX-F6244-3SB4DX

XFP-SR

10GBASE-SR
MMF: 2m to 300m
33 AX-F6244-3X1SX

XFP-LR

10GBASE-LR
SMF: 2m to 10km
34 AX-F6244-3X1LX

Optical transceiver (SFP+)

XFP-ER

10GBASE-ER
SMF: 2m to 40km
35 AX-F6244-3X1EX

XFP-ZR

10GBASE-ZR
SMF: 2m to 80km
36 AX-F6244-3X1ZX

SFPP-SR

10GBASE-SR
MMF: 2m to 300m
37 AX-F0110-3P1SX

SFPP-LR

10GBASE-LR
SMF: 2m to 10Km
38 AX-F0110-3P1LX

SFPP-ER

10GBASE-ER
SMF: 2m to 40km
39 AX-F0110-3P1EX

Others

10G SFP+ direct attach cables

SFPP-CU

10G SFP+ direct attach cables

40 AX-F0110-3D1CU1MX (Cable length: 1m)
41 AX-F0110-3D1CU3MX (Cable length: 3m)
42 AX-F0110-3D1CU5MX (Cable length: 5m)

SD card

SD1G

SD memory card
43 AX-F0110-SD1GX

A list of optical transceivers available on each model

Model number	Abbrev.	Network switches						
		AX6700S	AX6600S	AX6300S	AX3800S	AX3640S	AX2500S	AX1200S
23 AX-F6244-3S1TX	SFP-T	●*1	●*1	●*1	●*2	●*3	●*4	–
24 AX-F6244-3S1SX	SFP-SX	●	●	●	●	●	●	●
25 AX-F6244-3S1S2X	SFP-SX2	●	●	●	–	●	●*5	●
26 AX-F6244-3S1LX	SFP-LX	●	●	●	●	●	●	●
27 AX-F6244-3S1LHX	SFP-LH	●	●	●	●	●	●	●
28 AX-F6244-3S1LHBX	SFP-LHB	●	●	●	●	●	●	–
29 AX-F6244-3SB1UX	SFP-BX1U	●	●	●	●	●	●	●
30 AX-F6244-3SB1DX	SFP-BX1D	●	●	●	●	●	●	●
31 AX-F6244-3SB4UX	SFP-BX4U	●	●	●	●	●	●	●
32 AX-F6244-3SB4DX	SFP-BX4D	●	●	●	●	●	●	●
33 AX-F6244-3X1SX	XFP-SR	●	●	●	–	●	–	–
34 AX-F6244-3X1LX	XFP-LR	●	●	●	–	●	–	–
35 AX-F6244-3X1EX	XFP-ER	●	●	●	–	●	–	–
36 AX-F6244-3X1ZX	XFP-ZR	●	●	●	–	●	–	–
37 AX-F0110-3P1SX	SFPP-SR	–	–	–	●	–	●	–
38 AX-F0110-3P1LX	SFPP-LR	–	–	–	●	–	●	–
39 AX-F0110-3P1EX	SFPP-ER	–	–	–	●	–	●	–
40 AX-F0110-3D1CU1MX*6	SFPP-CU1M	–	–	–	●	–	●	–
41 AX-F0110-3D1CU3MX*6	SFPP-CU3M	–	–	–	●	–	●	–
42 AX-F0110-3D1CU5MX*6	SFPP-CU5M	–	–	–	●	–	●	–

The above table shows the optical transceivers supported on each model listed in this catalogue.
*1: NIFs supporting optical transceivers: NK1G-24S (AX6700S/AX6600S), NH1G-24S (AX6300S) *2: SFP/SFP+ shared ports support only 1000BASE-T.
*3: Supported on 10 AX3640S-24SW / 11 AX3640S-24S2XW. *4: In 16 AX2530S-24S4X, the SFP ports operate in 10/100/1000BASE-T mode when used with the SFP-T module, while the SFP/SFP+ shared ports operate in 1000BASE-T mode when used with the SFP-T module. In the other AX2500S models, the ports, whether they are SFP ports or SFP/SFP+ shared ports, operate in 1000BASE-T mode when used with the SFP-T module. *5: Supported only on the SFP ports (not supported on the SFP/SFP+ shared ports).
*6: Cables whose ends are shaped so as to fit SFP+. Used for short-distance device connection (a few meters).

Switch Specifications

AX6700S/AX6600S/AX6300S series

Category	Functions		AX6700S	AX6600S	AX6300S
LAN	Ethernet	10BASE-T/100BASE-TX/1000BASE-T	●	●	●
		1000BASE-X(SX/LX/LH) (for SFP)	●	●	●
		1000BASE-X(SX2/BX) (for SFP)	●	●	●
		1000BASE-X(LHB) (for SFP)	●	●	●
		10BASE-T/100BASE-TX/1000BASE-T (for SFP)	●*2	●*2	●*2
		10GBASE-R (for XFP)	●	●	●
Layer 2		Maximum MAC addresses*1	120k	120k	120k
	VLAN	Tag-VLAN (IEEE802.1Q)	●	●	●
		Port-based VLAN	●	●	●
		Protocol VLAN	●	●	●
		MAC VLAN	●	●	●
		Tag translation	●	●	●
	Spanning Tree Protocol	STP(IEEE802.1D)	●	●	●
		RSTP(IEEE802.1w)	●	●	●
		PVST+	●	●	●
		MSTP(IEEE802.1s)	●	●	●
	Common functionality for STP	BPDU filter	●	●	●
		Root guard	●	●	●
		Loop guard	●	●	●
	IGMP / MLD snooping	IGMP snooping (v1/v2/v3)	●	●	●
		MLD snooping (v1/v2)	●	●	●
	Others	Policy-based switching	●	●	●
		L2 loop detection	●	●	●
		Storm control	●	●	●
		IEEE802.3ah/UDLD	●	●	●
		Ring protocol	●	●	●
		EtherOAM	●	●	●
Routing protocol	IPv4 Unicast	Static	●	●	●
		RIP/RIP2	●	●	●
		OSPF	●	●	●
		BGP4	●	●	●
		IS-IS	*	*	*
		Policy-based routing	●	●	●
		Maximum routes*1	208k	208k	208k
	Multicast	PIM-SM/SSM	●	●	●
		PIM-DM	●	●	●
		IGMPv2/v3	●	●	●
		Maximum routes*1	8,000	8,000	8,000
	IPv6 Unicast	Static	●	●	●
		RIPng	●	●	●
		OSPFv3	●	●	●
		BGP4+	●	●	●
		IS-IS	*	*	*
		Policy-based routing	●	●	●
		Maximum routes*1	104k	104k	104k
	Multicast	PIM-SM/SSM	●	●	●
		MLDv1/v2	●	●	●
		Maximum routes*1	8,000	8,000	8,000
Network functionality	QoS Flow detection	L2/IPv4/IPv6/L4	●	●	●
	Bandwidth monitoring	UPC	●	●	●
	Marking	DSCP/User priority	●	●	●
	Priority control	Flow-based	●	●	●
		DSCP mapping	●	●	●
		User priority mapping	—	—	—
		Tos/Cos mapping	—	—	—
	Discard control	Tail Drop	●	●	●

Category		Functions		AX6700S	AX6600S	AX6300S
Network functionality	QoS	Shaping	Port bandwidth control	●	●	●
			Strict priority queuing (PQ)	●	●	●
			Round robin (RR)	●	●	●
			Other scheduling features	PQ+WFQ/PQ+WFQ+BEQ/WFQ+BEQ		
		Hierarchical shaping	Port bandwidth control	●	●	●
			User bandwidth control	●	●	●
			Scheduling	●	●	●
		Others	Diff-serv	●	●	●
			IEEE802.1p	●	●	●
	Security		Access control lists (L2/IPv4/IPv6/L4)	●	●	●
			Access list logging	●	●	●
			IEEE802.1X	●	●	●
			Web-based authentication	●	●	●
			MAC-based authentication	●	●	●
			Multi-step authentication	—	—	—
			DHCP snooping	●	●	●
			Inter-port relay blocking	—	—	—
	High reliability		Load balancing (IPv4/IPv6)	●	●	●
			VRRP(IPv4/IPv6)	●	●	●
			Static / VRRP polling (IPv4/IPv6)	●	●	●
			Link aggregation (IEEE802.3ad)	●	●	●
			GSRP(L2/IPv4/IPv6)	●	●	●
			Fast reroute	●	●	●
			Uplink Redundancy	—	—	—
			SML (Split Multi Link)	—	—	—
		Graceful Restart	OSPF/OSPFv3/BGP4/BGP4+/IS-IS	●*3	●*3	●*3
			Helper (OSPF/OSPFv3/IS-IS)	●*3	●*3	●*3
			Receiving Router (BGP4/BGP4+)	●	●	●
	Network Partition		Use with layer 2 functionality	●	●	●
		IP routing	IPv4 unicast	●	●	●
			IPv4 multicast	●	●	●
			IPv6 unicast	●	●	●
			IPV6 multicast	●	●	●
			Extranet VRF	●	●	●
	Others		IPv4 DHCP server / relay agent	●	●	●
			IPv6 DHCP server (Prefix delegation)	●	●	●
			IPv6 DHCP relay agent	●	●	●
			L2-VPN (VLAN tunneling)	●	●	●
Network management			SNMPv1/v2c/v3	●	●	●
			MIB-II/IP Forwarding MIB/Interface MIB/IPv6 MIB/RMON	●	●	●
			sFlow v2/v4	●	●	●
			LLDP/OADP	●	●	●
			Port mirroring	●	●	●
Operation / maintenance			Command-free maintenance	●	●	●
			RADIUS/TACACS+	●	●	●
			SSH	●	●	●
			uRPF	●	●	●
			syslog/ping/traceroute/telnet/ftp/tftp/NTP	●	●	●
Power saving	Static power saving		Power control of the shared parts/NIF (restart required)	●	●	●
			Powering off NIF/ports	●	●	●
	Dynamic power saving		Power control of the shared parts (restart not required)	●	●	—
			Powering off the shared parts	●	●	—
			Scheduling	●	●	—
			Secure Wake On LAN	—	—	—
Redundancy			Power supply	●	●	●
			Shared parts*4	●	●	●

*1: Maximum numbers of MAC addresses and routes vary with each table allocation pattern. The values given here are the maximum allowable values for table allocation setting in each AX switch. For details, see manuals for each product (it is not possible to set a maximum value for all entries). k = 1024
*2: NIFs supporting these interfaces are NK1G-24S (AX6700S/AX6600S) and NH1G-24S (AX6300S). *3: IS-IS will be supported in the future.
*4: The shared parts for AX6700S/AX6600S/AX6300S are as follows.
AX6700S: BCU (Basic Control Unit), BSU (Basic Switching Unit), Power Supply
AX6600S: CSU (Control and Switching Unit), Power Supply
AX6300S: MSU (Management and Switching Unit), Power Supply

[Legends] ○: Supported, —: Not supported, *: Planned to be supported

Switch Specifications

AX3800S/AX3600S/AX2500S/AX1200S series

Category			Functions	AX3800S	AX3600S	AX2500S	AX1200S AX1250S/AX1240S
LAN	Ethernet		10BASE-T/100BASE-TX/1000BASE-T	●	●	●	●
			1000BASE-X(SX/LX/LH) (for SFP)	●	●	●	●
			1000BASE-X(SX2/BX) (for SFP)	●*2	●	●*3	●
			1000BASE-X(LHB) (for SFP)	●	●	●	—
			10BASE-T/100BASE-TX/1000BASE-T (for SFP)	●*4	●*5	●*6	—
			10GBASE-R (for XFP/SFP+)	●(SFP+)	●(XFP)	●(SFP+)	—
Layer 2			Maximum MAC addresses	128k	32k/16k	32k	16k
	VLAN		Tag-VLAN (IEEE802.1Q)	●	●	●	●
			Port-based VLAN	●	●	●	●
			Protocol VLAN	●	●	●	●
			MAC VLAN	●	●	●	●
			Tag translation	●	●	●	—
	Spanning Tree Protocol		STP(IEEE802.1D)	●	●	●	●
			RSTP(IEEE802.1w)	●	●	●	●
			PVST+	●	●	●	●
			MSTP(IEEE802.1s)	●	●	●	●
		Common functionality for STP	BPDU filter	●	●	●	●
			Root guard	●	●	●	●
			Loop guard	●	●	●	●
	IGMP / MLD snooping		IGMP snooping (v1/v2/v3)	●	●	●	●
			MLD snooping (v1/v2)	●	●	●	●
	Others		Policy-based switching	—	—	—	—
			L2 loop detection	●	●	●	●
			Storm control	●	●	●	●
			IEEE802.3ah/UDLD	●	●	●	●
			Ring protocol	●	●	●*7*8	●*7
			EtherOAM	●	●	●	●
Routing protocol	IPv4	Unicast	Static	●	●	—	—
			RIP/RIP2	●	●	—	—
			OSPF	●	●	—	—
			BGP4	●	●	—	—
			IS-IS	*	*	—	—
			Policy-based routing	—	●/—	—	—
			Maximum routes*1	13k	12k	—	—
		Multicast	PIM-SM/SSM	●	●	—	—
			PIM-DM	—	—	—	—
			IGMPv2/v3	●	●	—	—
			Maximum routes*1	1,024	1,024	—	—
	IPv6	Unicast	Static	●	●	—	—
			RIPng	●	●	—	—
			OSPFv3	●	●	—	—
			BGP4+	●	●	—	—
			IS-IS	*	*	—	—
			Policy-based routing	—	—	—	—
			Maximum routes*1	7,560	5,632	—	—
		Multicast	PIM-SM/SSM	●	●	—	—
			MLDv1/v2	●	●	—	—
			Maximum routes*1	128	128	—	—
Network functionality	QoS	Flow detection	L2/IPv4/IPv6/L4	●	●	●	●(IPv6 not supported)
		Bandwidth monitoring	UPC	●	●	—	—
		Marking	DSCP/User priority	●	●	●	●
		Priority control	Flow-based	●	●	●	●
			DSCP mapping	—	—	—	—
			User priority mapping	●	●	●	●
			Tos/Cos mapping	—	—	—	●
		Discard control	Tail Drop	●	●	●	●

Category			Functions	AX3800S	AX3600S	AX2500S	AX1200S AX1250S/AX1240S
Network functionality	QoS	Shaping	Port bandwidth control	●	●	●	●
			Strict priority queuing (PQ)	●	●	●	●
			Round robin (RR)	—	●	—	—
			Other scheduling features	★	PQ+DRR/PQ+WRR/WRR/WFQ	PQ+WRR/WRR/WFQ	PQ+WRR/WRR/WFQ
		Hierarchical shaping	Port bandwidth control	—	—	—	—
			User bandwidth control	—	—	—	—
			Scheduling	—	—	—	—
		Others	Diff-serv	●	●	●	●
			IEEE802.1p	●	●	●	●
	Security		Access control lists (L2/IPv4/IPv6/L4)	●	●	●	●(IPv6 not supported)
			Access list logging	—	—	—	—
			IEEE802.1X	●	●	●	●
			Web-based authentication	●	●	●	●
			MAC-based authentication	●	●	●	●
			Multi-step authentication	—	—	●	●
			DHCP snooping	●	●	●	●
			Inter-port relay blocking	●	●	●	●
	High reliability		Load balancing (IPv4/IPv6)	●	●	—	—
			VRRP(IPv4/IPv6)	●	●	—	—
			Static / VRRP polling (IPv4/IPv6)	●	●	—	—
			Link aggregation (IEEE802.3ad)	●	●	●	●
			GSRP(L2/IPv4/IPv6)	●	●	●(aware)	●(aware)
			Fast reroute	—	—	—	—
			Uplink Redundancy	●	●	●	●
			SML (Split Multi Link)	—	—	●	—
		Graceful Restart	OSPF/OSPFv3/BGP4/BGP4+/IS-IS	—	—	—	—
			Helper (OSPF/OSPFv3/IS-IS)	●*9	●*9	—	—
			Receiving Router (BGP4/BGP4+)	●	●	—	—
		Network Partition	Use with layer 2 functionality	●	—	—	—
		IP routing	IPv4 unicast	●	—	—	—
			IPv4 multicast	●	—	—	—
			IPv6 unicast	●	—	—	—
			IPV6 multicast	●	—	—	—
			Extranet VRF	●	—	—	—
	Others		IPv4 DHCP server / relay agent	●	●	●*10	●*10
			IPv6 DHCP server (Prefix delegation)	●	●	—	—
			IPv6 DHCP relay agent	●	●	—	—
			L2-VPN (VLAN tunneling)	●	●	●	—
Network management			SNMPv1/v2c/v3	●	●	●	●(v1,v2c)
			MIB-II/IP Forwarding MIB/Interface MIB/IPv6 MIB/RMON	●	●	●*11	●*11
			sFlow v2/v4	●	●	—	—
			LLDP/OADP	●	●	●(LLDP)	●(LLDP)
			Port mirroring	●	●	●	●
Operation / maintenance			Command-free maintenance	●	●	●	●
			RADIUS/TACACS+	●	●	●(RADIUS)	●(RADIUS)
			SSH	●	●	●	●
			uRPF	—	—	—	—
			syslog/ping/traceroute/telnet/ftp/tftp/NTP	●	●	●(IPv6 not supported)*12	●(IPv6 not supported)
Power saving	Static power saving		Powering off the device (restart required)	—	—	—	—
			Powering off ports	●	●	●	●
	Dynamic power saving		Power control of the device (schedule sleep)	●	—	●	●
			Powering off ports (scheduling)	●	●	●	●
			Suppressing power feeding for unused ports	●*13	—	●*13	●*13
			Secure Wake On LAN	—	—	●	●
Redundancy			Power supply	●	●*14	—	—
			Shared parts	—	—	—	—

★AX3800S: PQ+RR/PQ+WFQ/PQ+WRR/PQ+ERR

*1: Maximum numbers of MAC addresses and routes vary with each table allocation pattern. The values given here are the maximum allowable values for table allocation setting in each AX switch. For details, see manuals for each product (it is not possible to set a maximum value for all entries). k = 1024

*2: SFP-SX2 is not supported. *3: SFP-SX2 is supported only on the SFP ports (not supported on the SFP/SFP+ shared ports). *4: SFP/SFP+ shared ports support only 1000BASE-T.

*5: Supported on [10] AX3640S-24SW / [11] AX3640S-24S2XW. *6: In [16] AX2530S-24S4X, the SFP ports operate in 10/100/1000BASE-T mode when used with the SFP-T module, while the SFP/SFP+ shared ports operate in 1000BASE-T mode when used with the SFP-T module. In the other AX2500S models, the ports, whether they are SFP ports or SFP/SFP+ shared ports, operate in 1000BASE-T mode when used with the SFP-T module.

*7: Supports Transit only. *8: The Master function is planned to be supported in 2012. *9: IS-IS will be supported in the future. *10: Only the IPv4 DHCP server function is supported.

*11: IPv6 MIB is not supported. *12: IPv6 is planned to be supported in 2012. *13: Supported only on the 10/100/1000BASE-T (UTP) ports. *14: [7] AX3640S-24T does not support power redundancy.

[Legends] ○: Supported, —: Not supported, *: Planned to be supported